ASSEMBLY, OPERATING INSTRUCTIONS AND PARTS LIST FOR

SEARS TWIN CYLINDER TANK TYPE PAINT SPRAYERS

MODELS NO. 106.152000, 106.152020, 106.152030, 106.152060, 106.152081, 106.152040 OR 106.152070

The model number will be found on a plate attached to the base of the unit. Always mention the model number in all correspondence regarding the Sears Twin cylinder Compressor, or when ordering repair parts.

HOW TO ORDER REPAIR PARTS

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail from the mail order house which serves the territory in which you live, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1. **THE PART NUMBER**
2. **THE PART NAME**
3. **THE MODEL NUMBER**
4. **THE NAME OF ITEM**

COAST TO COAST NATION-WIDE SERVICE FROM SEARS FOR YOUR SEARS TWIN CYLINDER COMPRESSOR

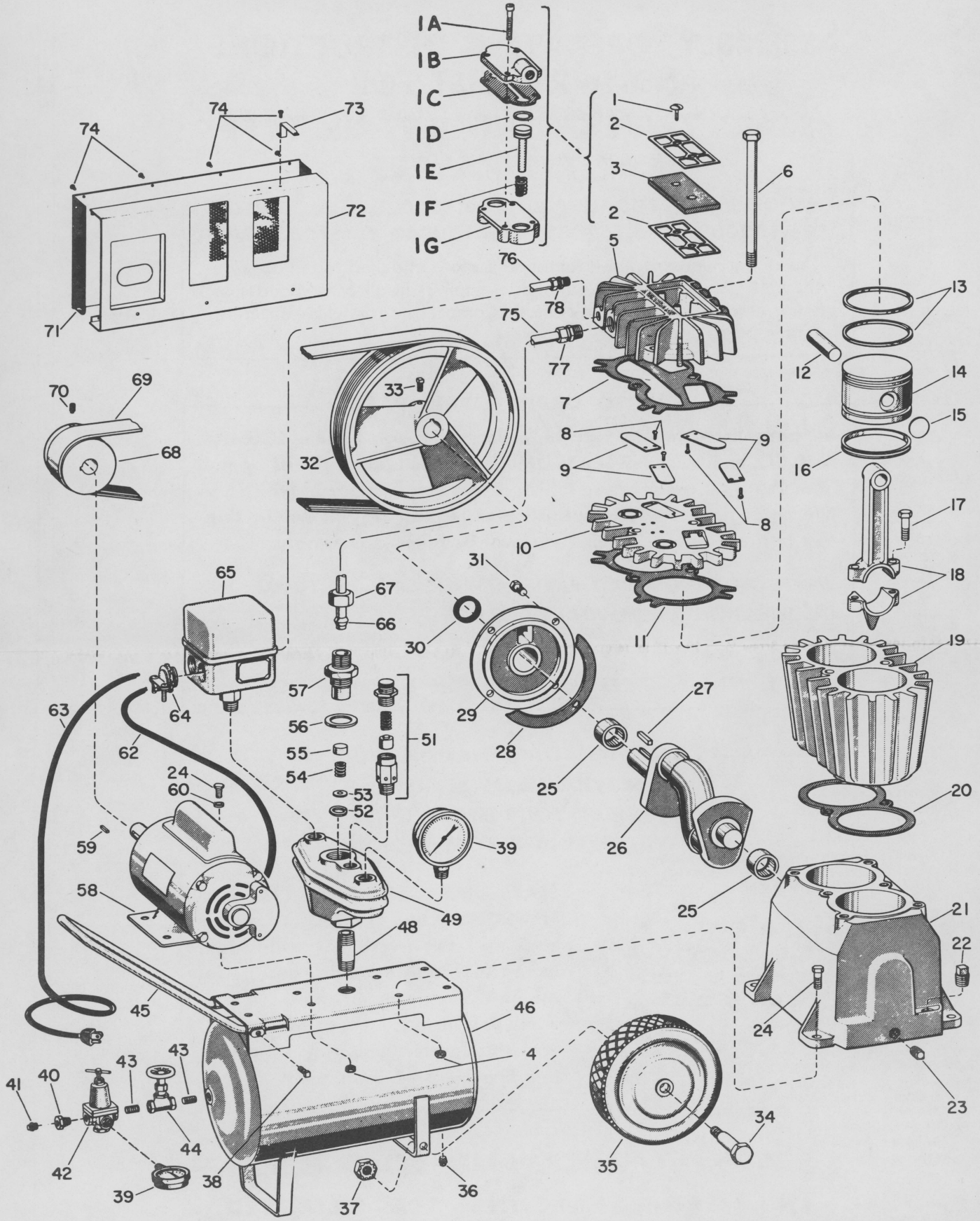
SEARS, ROEBUCK AND CO. and SIMPSONS-SEARS LIMITED in Canada back up your investment with quick, expert mechanical service and genuine SEARS replacement parts. If and when you need repairs or service, call on us to protect your investment in this fine piece of equipment.

SEARS, ROEBUCK AND CO. - U.S.A.

IN CANADA, SIMPSONS - SEARS LIMITED

PRINTED IN U.S.A.

MODELS NO. 106.152000, 106.152020, 106.152030, 106.152060, 106.152081, 106.152040 OR 106.152070



NOTE: Belt Guard not furnished with Models 106.152040 or 106.152070.

CAUTION: Maximum working pressure is 100 PSI. Do not operate the unit above this maximum working pressure.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1. THE PART NUMBER.
2. THE PART NAME.
3. THE MODEL NUMBER.
4. THE NAME OF ITEM.

Do not use Key Numbers when ordering Repair Parts, always use Part Numbers.

MODELS NO. 106.152000, 106.152020, 106.152030, 106.152060, 106.152081, 106.152040 OR 106.152070

KEY NO.	PART NO.	DESCRIPTION
1	*STD-287	Self Tapping Screw #10 - 32 x 5/16" lg. (2 used) (106.152000, 106.152020, 106.152030, 106.152040 and 106.152081)
1A	*STD-318	Machine Screw Fillister Head #10 - 24 x 1½" lg. (4 used) (106.152060 & 106.152070)
1B	VT-16	Unloader Head (106.152060 & 106.152070)
1C	XA-36	Unloader Gasket (106.152060 & 106.152070)
1D	STD-317	"O" Rings (106.152060 & 106.152070) (2 used)
1E	VT-14	Unloader Piston (106.152060 & 106.152070) (2 used)
1F	VT-15	Springs (106.152060 & 106.15207) (2 used)
1G	VT-13	Unloader Body (106.152060 & 106.152070)
2	VT-9	Filter Retainer (16.152000, 106.152020, 106.152030, 106.152081 & 106.152040) (2 used)
3	VT-8	Filter Felt (106.152000, 106.152020, 106.152030, 106.152040 & 106.152081)
	VT-17	Filter Felt (106.152060 & 106.152070)
4	*STD-187	Hex. Nut 5/16 - 18 (8 used)
5	VT-4	Cylinder Head (106.152000, 106.152020, 106.152030, 106.152040 & 106.152081)
	VT-12	Cylinder Head (106.152060 & 106.152070)
6	*STD-218	Hex. Head Cap Screw 5/16" - 18 x 5½" lg. (6 used)
7	XA-35	Cylinder Head Gasket
8	*STD-203	Machine Screw #5 - 40 x 3/16" lg. Pan Hd. (8 used)
9	VS-18	Flapper Valve (4 used)
10	VT-5	Valve Plate
11	XA-34	Valve Plate Gasket
12	VS-14	Piston Pin (2 used)
13	PX-11	Compression Rings (4 used)
14	VT-55	**Piston (2 used)**
15	STD-197	Welch Plugs (2 used)
16	PX-12	Oil Ring (2 used)
17	*STD-198	Hex. Hd. Cap Screw ¼" - 20 x 1" lg. (4 used)
18	VT-1	Connecting Rod (2 used)
19	VT-11	Cylinder
20	XA-33	Cylinder Gasket
21	VT-2004	Crankcase Assembly with Bearing
22	*STD-220	Pipe Plug Sq. Hd. — ¼"
23	*STD-223	Pipe Plug Sq. Hd. — ⅛"
24	*STD-145	Machine Bolt Hex. Hd. 5/16" - 18 x 1" lg. (8 used)
	*STD-336	Hex. Hd. Bolt 5/16" - 18 x 1⅜" lg. (4 used) (106.152060 & 106.152070)
25	*STD-217	Bearing (2 used)
26	VT-6	Crankshaft
27	*KE-4	Key 3/16" Sq. x ¾" lg.
28	XA-32	Bearing Cap Gasket
29	VT-2003	Bearing Cap Assembly with Bearing
30	STD-216	Oil Seal
31	*STD-242	Hex. Hd. Cap Screw - ¼" - 20 x ½" lg. (4 used)
32	PU-2	Fan Pulley
33	*STD-262	Set Screw - ⅜" - 16 x ¾" lg. Sq. Hd.
34	STD-334	Axle Bolt (2 used)
35	WA-25	Wheels (2 used)
36	*STD-223	Pipe Plug, Sq. Hd. ⅛" (106.152000, 106.152020, 106.152030, 106.152060, 106.152040 & 106.152070)
	*STD-301	¼" Drain Cock (106.152081)
37	STD-335	Hex. Nut (2 used)
38	*STD-122	Sq. Hd. Set Screw - ¼" - 20 x ½" lg.
39	GA-150	Pressure Gauge (2 used) (106.152000, 106.152020, 106.152030, 106.152060, 106.152040 & 106.152070)
	GA-200	Pressure Gauge (2 used) (106.152081)
40	*STD-64	Reducer Bushing ⅜" to ¼" pipe
41	HF-24	Hose Connector
42	RE-2004	Regulator
43	*STD-169	Pipe Nipple - ⅜" Close (2 used) (106.152000, 106.152020, 106.152030, 106.152081 & 106.152040)
	HF-27	Hose Fitting (2 used) (106.152060 & 106.152070)
44	*AV-2000	Globe Valve - ⅜"
45	VT-21	Handle
46	VT-2041	Air Receiver (106.152000, 106.152020, 106.152030 & 106.152040)
	VT-2052	Air Receiver (106.152060 & 106.152070)
	VT-2042	Air Receiver (106.152081)
48	*STD-372	Pipe Nipple ⅜" x 1¾" lg.
49	CV-25	Manifold
51	V-2013	Safety Valve (106.152000, 106.152020, 106.152030, 106.152040, 106.152070 & 106.152060)
	V-2017	Safety Valve (106.152081)
52	STD-321	Retaining Ring
53	CV-17	Pressure Plate
54	CV-16	Spring
55	CV-15	Seat
56	XA-14	Gasket
57	CV-14	Valve Body
58	MC-56	Motor (106.152000, 106.152030, 106.152081 & 106.152040)
	MC-63	Motor (106.152020)
	NG-8	Gasoline Engine 3 HP (106.152060 & 106.152070)
59	*KE-4	Key 3/16" Sq. x ¾" lg.
60	*STD-112	Washer ⅞" x ⅜" (4 used)
62	EC-23	Pressure Switch Cord (106.152000, 106.152020, 106.152040, 106.152030 & 106.152081)
63	EC-14	Motor Cord and Plug (106.152000, 106.152020, 106.152040 & 106.152030)
	EC-21	Motor Cord and Plug (106.152081)
64	*STD-129	Cord Strain Grip (2 used) (106.152000, 106.152020, 106.152040, 106.152030 & 106.152081)
65	CW-2038	Pressure Switch (106.152000, 106.152020, 106.152030, 106.152040 & 106.152081)
	V-2019	Air Governor (106.152060 & 106.152070)
66	STD-329	Compression Sleeve — ½"
67	STD-330	Compression Nut — ½"
68	PU-1	Motor Pulley (106.152000, 106.152030, 106.152081 & 106.152040)
	PU-3	Motor Pulley (106.152020, 106.152060 & 106.152070)
69	BT-31	Poly V Belt — 6J49
70	*STD-95	Socket Set Screw — ¼" - 20 x ¼" lg.

BELT GUARD ASSEMBLY CONSISTS OF THE FOLLOWING PARTS:

71	BG-77	Belt Guard — Front	BG-2035 Belt Guard Assembly (106.152000, 106.152020, 106.152030 and 106.152081)
72	BG-74	Belt Guard — Back (106.152000, 106.152020, 106.152030 and 106.152081)	
	BG-72	Belt Guard — Back (106.152060)	
73	BG-66	Belt Guard Bracket	BG-2041 Belt Guard Assembly (106.152060)
74	*STD-288	Self Tapping Screw #10 - 32 x ½" lg. (16 used)	
75	VT-19	Tubing — to Check Valve	
76	VT-20	Tubing to Pressure Switch (106.152000, 106.152020, 106.152040, 106.152030 & 106.152081)	
	VT-23	Tubing Unloader to Air Governor (106.152060 & 106.152070)	
77	STD-183	Compression Fitting — ½" x ⅜"	
78	STD-117	Compression Fitting — ¼" x ⅛" (106.152000, 106.152040, 106.152020, 106.152030 & 106.152081)	
	STD-155	Compression Ell ¼" x ⅛" (106.152060 & 106.152070)	

NOT ILLUSTRATED

HA-2005	Air Hose 5/16" x 15'
JB-2001	Air Chuck
*STD-308	Allen Wrench ¼"
106.156120	Spray Gun (See instructions packed with gun)
VT-2035	Compressor Block Assembly with Flywheel (106.152000, 106.152020, 106.152030, 106.152040 & 106.152081)
VT-2054	Compressor Block Assembly with Flywheel (106.152060 & 106.152070)
EC-22	Vinyl Parallel Ground Adapter (106.152081)
STD-151	Lockwasher
STD-407	Eyebolt
STD-408	Acorn Nut
STD-338	Ground Clip (106.152081)
INS-210	Operating Instructions and Parts List

* Standard hardware item, may be purchased locally.

MODELS NO. 106.152000, 106.152020, 106.152030, 106.152060, 106.152081, 106.152040 OR 106.152070

OPERATING INSTRUCTIONS

ASSEMBLY INSTRUCTIONS:

When you unpack your unit, check carefully that no damage occurred in transit. CAUTION: ADD OIL BEFORE OPERATING COMPRESSOR. Remove oil filler plug (22) add oil until full. Use 10W-30 detergent motor oil. This unit has been shipped with the belt and flywheel mounted to illustrate the correct belt tension and alignment. Remove the belt (69) by turning the flywheel (32) and sliding the belt over the side of the flywheel as you turn it. Loosen the flywheel set screw (33) and pry the flywheel off the crankshaft (26) using a large screwdriver or prying bar. DO NOT HAMMER ON THE FLYWHEEL. Mount the Belt Guard Back (72) on the side of the base using four self tapping screws packed in the white envelope in the parts package. NOTE: The envelope contains 15 long screws and one short screw; use the long screws to fasten the belt guard back to the base. Place flywheel (32) on crankshaft (26) and tighten set screw (33) on key (27). A loose flywheel will cause a knocking noise. Slip poly V belt (69) on motor pulley (68) and then over top of flywheel (32) turning until the belt is in place. Be sure to check to see that belt is running straight and pulley and flywheel are in line. Belt alignment and tension, when necessary to adjust, are accomplished by loosening motor mounting bolts (24) adjusting motor position and retightening bolts. Fit Belt Guard — Front (71) into the back half of the belt guard and secure in place using ten long self tapping screws. The long end of the Belt Guard Bracket (73) is fastened to the compressor head using the one short self tapping screw; the short end of the bracket is affixed to the top belt guard with the one remaining self tapping screw. Insert handle (45) into ferrules into side of base and tighten set screw (38) to hold handle in place. Screw nipple (43) into tank and mount globe valve (44) with arrow pointing away from tank. Run compressor 15 - 30 minutes with globe valve open to lubricate pistons and bearings.

Spray gun hook parts are packed in the parts box. To assemble, insert eyebolt thru hole in handle, add lockwasher and acorn nut and tighten in place.

PRESSURE REGULATOR:

Using the opening stamped "in", mount the pressure regulator (42) onto connector (43). The other connector (41) is screwed into the opening stamped "out", using bushing (40) and hose fastens from here to spray gun or tool. The gauge (39) screws into opening stamped "R".

The pressure regulator is used to control the air pressure from the tank. Loosen the lock nut on the stem and turn the handle clockwise to increase the pressure. To lower the pressure, stop sprayer, empty tank, and turn handle in counter-clockwise direction. Start sprayer and adjust to desired working pressure. Tighten lock nut on stem after adjusting. When using a spray gun with cup on pressure feed never set regulator over 50 psi. Ideal spraying pressures will vary with different types of materials.

CURRENT REQUIREMENTS:

Be sure line voltage matches wiring of motor. Models 106.152000, 106.152020, 106.152040 and 106.152081 are wired for 115 volts; model 106.152030 is wired for 220 volt operation.

Low voltage will cause motor to overheat and cut out overload protector. To reset, wait until motor cools. Then press red reset button. Low voltage is recognized when the following conditions exist:

1. Motor does not develop full power or speed.
2. Fuses blow out at starting or when load is applied.
3. Lights dim when motor starts and remain dim.

Avoid excessive voltage drop by keeping extension cords as short as possible. If it is necessary to use an extension cord, do not use less than 12 gauge for 25 ft., 10 gauge for 50 ft., and 7 gauge for 100 ft.

SPRAYER LOCATION:

Locate unit where there is sufficient circulation of clean dry air. Avoid getting excess paint on motor or compressor. The fan in the motor and compressor pulley circulate air and will pick up over-spray if located too close to work area. Be careful to keep hose away from belt and pulleys to avoid damage.

If humidity is very high a Sears air line filter should be installed in the air line some distance from the sprayer to remove excessive moisture.

MAINTENANCE:

Drain accumulated moisture from air receiver (46) through drain hole (36) and closing globe valve (44) allowing compressor to blow out any accumulation. When sprayer is operating be sure drain plug is tight to avoid leakage of air. Check oil level periodically and refill as needed. Change oil every 400 hours or when dirty or contaminated. Always use 10W-30 detergent motor oil. This new style verti-fin compressor is equipped with new reed type valves (9). These are non-clogging, self cleaning and require very little attention. If necessary to change valves simply remove screws (8) and replace with new valves making sure seats in valve plate (10) are clean and not worn. The filter felt (3) will gather dirt and paint and should be cleaned or replaced as needed. A decided drop in operating pressure is usually caused by worn valves (9), worn seats in valve plate (10), leaks in tubing or other air connections. Excessive use or lack of oil will cause abnormal wear on piston rings (13 and 16) and they should be replaced as needed or when pumping excessive oil. The motor has oil sealed bearings and does not require lubrication. In case of motor failure return to Sears authorized motor service station.

MANIFOLD ASSEMBLY:

The manifold assembly consists of the following: the pressure switch (65) is set to go on at 80 lbs. and off at 100 lbs. This automatically stops and starts the motor at a safe operating pressure and should not be changed for any reason. The pressure switch also has a relief valve which relieves compressor head pressure when unit turns off. The check valve assembly (52-57) is open when compressor is running and closes when compressor stops to keep pressure in the tank from backing onto the compressor head. Dirt on the seat (55) will cause leakage of air and valve should be disassembled and cleaned if this occurs. The safety valve assembly (51) is an added feature to protect your sprayer. It is set at 10% over the cutoff setting of the pressure switch and will relieve the pressure should the need arise. Do not change the setting of the safety valve. The gauge (39) shows the air pressure in the tank at all times.

The gas engine models 106.152060 and 106.152070 are continuous running units and, therefore, a governor is substituted for the pressure switch. The air governor is connected to the unloader valve on top of the compressor, permitting the compressor to run free when maximum pressure is obtained in the air receiver. The air governor is set at the factory and should not be adjusted.

GENERAL INFORMATION:

A spray gun requiring 6.2 cfm, of air or less at 45 lbs. of pressure can be used with this compressor. The 106.156120 spray gun furnished with this unit may be used with the cup or Sears material tank. (See operating instructions packed with gun for complete information.) NOTE: The maximum working pressure of these paint sprayers is the highest pressure that can be expected from the unit, and does not mean that the pressures will be maintained when spraying continuously with spray gun held wide open. Spraying pressures will vary with different types of material, viscosity of the material, setting of the pressure regulator, setting material control knob on gun, etc. However, extremely satisfactory results can be obtained with this unit. It is important that materials be thinned to proper weight as indicated on a Sears viscosimeter for best results. The paint sprayer can also be used for operating air tools, dusting equipment, inflating tires and plastic toys, spray insecticides, fumigants, weed killers, moth proofing, caulking guns, etc.

NOTE: Under normal operating conditions an air compressor generates heat; to avoid a burn, do not touch the compressor, tubing or motor during or immediately after operation.